



DEPARTMENT OF COMMERCE

National Institute of Standards and Technology

Establishment of a Laboratory Accreditation Program for Laboratories Performing System Integration Testing and Operational/User Acceptance Testing on Federal Warfare Systems Under the National Voluntary Laboratory Accreditation Program

AGENCY: National Institute of Standards and Technology, Commerce.

ACTION: Notice.

SUMMARY: Under the National Voluntary Laboratory Accreditation Program (NVLAP) the National Institute of Standards and Technology (NIST) announces the establishment of a laboratory accreditation program and the availability of applications for accreditation of laboratories that perform System Integration Testing (SIT) and Operational/User Acceptance Testing (O/UAT) on Federal Warfare Systems.

ADDRESSES: Laboratories may obtain NIST Handbook 150, *NVLAP Procedures and General Requirements*, NIST Handbook 150-872, *Federal Warfare System(s)*, and an application for this program by visiting the NVLAP website at <https://www.nist.gov/nvlap> or by sending a request to NVLAP by mail at NIST/NVLAP, 100 Bureau Drive, Stop

2140, Gaithersburg, MD 20899-2140 or by email at nvlap@nist.gov. All applications for accreditation must be submitted to nvlap@nist.gov.

FOR FURTHER INFORMATION CONTACT: Brad Moore, Program Manager,
NIST/NVLAP, 100 Bureau Drive, Stop 2140, Gaithersburg, MD 20899-2140, Phone:
(301) 975-5740 or email: bradley.moore@nist.gov.

Information regarding NVLAP and the accreditation process can be obtained from
<https://www.nist.gov/nvlap>.

SUPPLEMENTARY INFORMATION:

In response to the need for an improved capability to prototype and experiment prior to generating requirements, the U-2 Federal Laboratory was established in accordance with 15 U.S.C. § 3710 and 10 U.S.C § 2500. The U-2 Federal Laboratory’s mission is to “[f]ast-field advanced technologies at a speed relevant to the warfighter,” in accordance with House Report 115-676 (2018)¹ and the Congressionally-mandated 2018 National Defense Strategy. This is accomplished through vertical integration with one laboratory to effect “[c]onfluence of Warfighter, Developer, and Acquirer.”²

On May 7, 2019, the U-2 Federal Laboratory formally requested in writing the Chief of NVLAP consider the establishment of a proposed new Laboratory Accreditation Program (LAP) entitled, “Federal Warfare System(s) LAP,” in accordance with NIST Handbook 150 Para 2.1.3. In compliance with NVLAP procedures (15 CFR Part 285), NVLAP held

¹ U.S., House, Committee on Armed Services, *National Defense Authorization Act for Fiscal Year 2019* (H. Rpt. 115-676). Washington: Government Printing Office, 2018.

² MAJOR Tierney, Raymond G., *The Federal Warfare Systems Laboratory Executive Summary*, Available at: https://www.nist.gov/system/files/documents/2021/05/27/FWS%20LAB_2021%20White%20Paper_v17.2021APR19.pdf. Accessed: 7/13/2021.

a public workshop on November 19, 2019 to solicit further comments on the establishment of a Federal Warfare System(s) LAP and on the technical requirements to be associated with the LAP.

Determination

Under the framework of the Federal Warfare Systems Laboratory, advanced technologies can be developed or integrated to determine technical feasibility (“Is it possible?”). Embedded developers then hand the technology to the end-user (“Warfighter”) to determine operational utility (“Is it useful?”). This process continuously cycles between development and operations. The desired outcome is achieved when the technology has evolved to a high-Technology Readiness Level (TRL), Warfighter-useful solution. At this point, the technology generally transitions into the Joint Capabilities Integration and Development System and Defense Acquisition System (DoD Directive 5000.01 and DoD Instruction 5000.02) as a vetted, mature requirement. In this way, the acquisitions process is meaningfully compressed, and cost offsets realized, by (a) front-loading development with the end-user and (b) abating the problems of scope, understanding, and volatility associated with the requirement development process. Importantly, establishment of this LAP affords a means to standardize the traceability, competence, impartiality, and operational consistency of Federal Laboratories supporting warfare systems within the Department of Defense, as well as a means to meet a 2018 National Defense Strategy mandate that, “prototyping and experimentation should be used prior to defining requirements.”³

³ *Excerpt from the 2018 National Defense Strategy.*

The U.S. Air Force Air Combat Command (ACC) Office of the Chief Scientist is considering a command-wide plan for adoption of the Federal Warfare System Laboratory construct. Interest in this concept has also been expressed by senior military leaders.

Based on careful analysis of comments received during the public workshop and a review of the Secretary of Defense's strategies, instructions, and mandates, the Chief of NVLAP has determined that the establishment of a LAP for laboratories conducting SIT and O/UAT on Federal Warfare Systems best meets government needs.

This notice is issued in accordance with NVLAP procedures and general requirements, found in 15 CFR Part 285.

NVLAP provides an unbiased, third-party evaluation and recognition of competence. NVLAP accreditation signifies that a laboratory has demonstrated that it operates in accordance with NVLAP management and technical requirements pertaining to quality systems, personnel, accommodation and environment, test and calibration methods, equipment, measurement traceability, sampling, handling of test and calibration items, and test and calibration reports.

NVLAP accreditation does not imply any guarantee (certification) of laboratory performance or test/calibration data. NVLAP accreditation is a finding of laboratory competence.

Technical Requirements for the Accreditation Process: NVLAP assessments are conducted in accordance with the National Voluntary Laboratory Accreditation Program

regulations, which are found at 15 CFR Part 285. NVLAP accreditation is in full conformance with relevant standards of the International Organization for Standardization (ISO) and the International Electrotechnical Commission (IEC), including ISO/IEC 17025, *General requirements for the competence of testing and calibration laboratories*.

Accreditation is granted to a laboratory following successful completion of a process, which includes submission of an application and payment of fees by the laboratory, a review of the laboratory management system documentation, an on-site assessment by technical experts, participation in proficiency testing when available, and resolution of any management system or technical nonconformities identified during any phase of the application process. The accreditation is formalized through issuance of a Certificate of Accreditation and Scope of Accreditation.

General requirements for accreditation are given in NIST Handbook 150, *NVLAP Procedures and General Requirements*, <https://nvlpubs.nist.gov/nistpubs/hb/2020/NIST.HB.150-2020.pdf> The specific technical and administrative requirements for the program for accreditation of laboratories performing SIT and O/UAT on Federal Warfare Systems are provided in NIST Handbook 150-872, *Federal Warfare System(s)*, <https://nvlpubs.nist.gov/nistpubs/hb/2021/NIST.HB.150-872-2021.pdf>. Laboratories must meet all NVLAP criteria and requirements in order to become accredited. To be considered for accreditation, the applicant laboratory must provide a completed application to NVLAP, pay all required fees, agree to conditions for accreditation, and be found competent to perform the tests prescribed in the standards.

Application Requirements include: (1) Legal name and full address of the laboratory; (2) Ownership of the laboratory; (3) Authorized Representative's name and contact information; (4) Names, titles, and contact information for laboratory staff nominated to serve as Approved Signatories of test and calibration reports that reference NVLAP accreditation; (5) Organization chart defining relationships that are relevant to performing testing and calibrations covered in the accreditation request; (6) General description of laboratory, including its facilities and scope of operations; and (7) Requested scope and accreditation.

For this program, the laboratory shall provide a copy of its management system documents prior to the on-site assessment. NVLAP will review the management system documentation and discuss any nonconformities with the Authorized Representative before the on-site visit. Laboratories that apply for accreditation will be required to pay NVLAP fees and undergo on-site assessment and shall meet proficiency testing requirements before initial accreditation can be granted.

Paperwork Reduction Act: This action contains a collection-of-information requirement subject to review and approval by the Office of Management and Budget (OMB) under the Paperwork Reduction Act (PRA) of 1995. Collection activities for NVLAP are currently approved by OMB under control number 0693-0003.

Notwithstanding any other provision of law, no person is required to respond to, nor shall any person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the PRA unless it displays a currently valid OMB Control Number.

Alicia Chambers,
NIST Executive Secretariat.

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